

REMARKS

Reconsideration and withdrawal of the rejections of the claims are requested in view of the following remarks, which place the claims in condition for allowance.

I. STATUS OF CLAIMS AND FORMAL MATTERS

Claims 1, 3-5, 12, 14, 16, 17, 30, 33, 36, 42, 47, 49-51, 53-57, 60-65, 100 and 101 are under consideration in this application. Claims 1, 3-5, 12, 14, 16, 17, 30, 33, 42, 47, 49-51, 53-57, 60, 61, 100 and 101 are amended; claims 2, 6-11, 13, 15, 18-29, 31, 32, 34, 35, 38-41, 43-46, 48, 52, 58, 59, 62-64 and 67-99 are cancelled.

Support for decreasing regulatory T cell activity, as recited in claim 1, can be found, for example, on page 17, lines 1-2, of the application as filed. Support for the T cell being a CD4+ cell can be found throughout the specification and, in particular, in Example 3. Support for exposing a cell to a modulator *in vivo* can be found, for example, on page 10, line 18; support for exposing a cell to a modulator *ex vivo* can be found, for example, on page 19, line 7. Support for the modulator being an inhibitor of presenilin or of presenilin-dependent gamma-secretase can be found, for example, in the specification starting on page 6, line 14, to page 7, line 10. The remaining claim amendments are made for consistency and to modify claim dependencies. No new matter is added.

Specification

The title of the invention was objected to as being non-descriptive. The title has been amended, obviating the objection.

Claim Objections

Claims 4 and 8 were objected to as encompassing non-elected species. Claim 8 is cancelled. Claim 1 is generic. Upon allowance of claim 1, the restriction with respect to claim 4 (and the other non-elected subject matter) should be withdrawn.

II. THE REJECTIONS UNDER 35 U.S.C. § 112 ARE OVERCOME

Claims 1-8, 11, 15-22, 24, 25, 27, 28, 30, 31, 33, 34, 36, 38, 39, 41-47, 49-51, 53-57, 60-65, 67, 68 and 97-101 were rejected under the first paragraph of Section 112 as allegedly lacking enablement. The rejection is traversed.

The Examiner is thanked for indicating in the sentence bridging pages 8 and 9 of the

Office Action that the specification is enabling “for enhancing/inhibiting activation of regulatory CD4+ T cells.” Claim 1 is so amended, obviating the enablement rejection with respect to claim 1 and its dependent claims.

Claim 42 is amended to reflect the manner in which Notch IC protease activity is modulated and to specify that cytokine expression is modulated in regulatory CD4+ T cells. Therefore, the enablement rejection is overcome with respect to claim 42 and dependent claims.

Claims 1-8, 11, 15-22, 24, 25, 27, 28, 30, 31, 33, 34, 36, 38, 39, 41-47, 49-51, 53-57, 60-65, 67, 68 and 97-101 were rejected under the first paragraph of Section 112 as allegedly lacking adequate written description. The rejection is traversed.

The Examiner is thanked for indicating on page 14 of the Office Action the inhibitors of presenilin and presenilin-dependent γ -secretase of which Applicant has possession. As several members of this genus are well-known in the art and discussed in the specification (see, for example, the section beginning on page 6, line 19), the claims as amended meet the written description requirement.

Claims 1-8, 11, 15-22, 24, 25, 27, 28, 30, 31, 33, 34, 36, 38, 39, 41-47, 49-51, 53-57, 60-65, 67, 68 and 97-101 were rejected under the second paragraph of Section 112 as allegedly being incomplete because the claims did not point out the subject of the administration. Claims 1 and 42 are amended to clarify that the regulatory CD4+ T cell is contacted with the inhibitor. Claims 36 and 65 and 37 and 66, respectively, encompass *in vivo* and *ex vivo* administration, both aspects of which are contemplated by claims 1 and 42.

Claims 1-8, 11, 15-22, 24, 25, 27, 28, 30, 31, 33, 34, 36, 38, 39, 41-47, 49-51, 53-57, 60-65, 67, 68 and 97-101 were rejected under the second paragraph of Section 112 as allegedly being indefinite. The rejections are traversed.

The first ground of the indefiniteness rejection, based on the recitation of “modulating/modulators,” (Office Action at 17) is rendered moot by the amendments to the claims.

The second ground of the rejection, based on the recitation of “agonist” in claims 2 and 6, is obviated by cancellation of those claims.

The next ground of the rejection is based on the recitation of “Notch signalling pathway” in claim 5. The Examiner asserts that “Applicant fails to define/specify what is/is not included

within the limitations of the claims. The disclosure also fails to set for [sic] the metes and bounds of which is encompassed within the definition of ‘the Notch signaling pathway.’” Office Action at 18. Claim 5 recites “an agent that down-regulates the Notch signalling pathway.” Contrary to the Examiner’s contention on page 18 of the Office Action that the application “provides few examples of the Notch signaling pathway on p. 25 of the specification,” Notch signaling is discussed extensively in the section of the specification beginning on page 25, line 8. In addition, the molecular components of the Notch signaling pathway are well-known in the art and are summarized by Artavanis-Tsakonas *et al.* (Science, 268: 225-32; 1995; copy enclosed), which is cited in the present specification at page 118, line 1, and incorporated by reference at page 1, lines 16-18. Moreover, the section of the specification beginning on page 45, line 26, provides numerous examples of agents that down-regulate Notch signaling.

The final ground of the rejection is based on the recitation of MW167 in claim 101. The specification is amended to indicate the chemical formula of MW167 and reference to the formula is now made in claim 101.

Reconsideration and withdrawal of all of the rejections under Section 112 are requested.

III. THE DOUBLE-PATENTING REJECTIONS ARE PROVISIONAL

Claims 1-8, 11, 15-22, 24, 25, 27, 28, 30, 31, 33, 34, 36, 38, 39, 41-47, 49-51, 53-57, 60-65, 67, 68 and 97-101 were provisionally rejected under the judicially-created doctrine of obviousness-type double patenting as allegedly being unpatentable over a number of co-pending applications. Applicants request that these rejections be held in abeyance until conflicting claims are patented.

IV. THE REJECTION UNDER 35 U.S.C. § 103 IS OVERCOME

Claims 1-8, 11, 15-22, 24, 25, 27, 28, 30, 31, 33, 34, 36, 38, 39, 41-47, 49-51, 53-57, 60-65, 67, 68 and 97-101 were rejected under Section 103(a) as allegedly being unpatentable over U.S. Patent No. 6,887,475 (“the ‘475 patent”) and Hadland *et al.* in view of Strooper *et al.* The rejection is traversed.

The ‘475 patent is precluded from being cited against the present application by Section 103(c). The ‘475 patent qualifies as prior art only under Section 102(e). Moreover, the ‘475 patent and the present application were, at the time the invention was made, subject to assignment by the inventors to Lorantis Limited. The assignment of the ‘475 patent to Lorantis

Limited was recorded at reel 009998, frame 0624, on June 1, 1999. The assignment of the present application to Lorantis Limited was recorded at reel 014977, frame 0443, on August 6, 2004.

Reconsideration and withdrawal of the Section 103 rejection are requested.

CONCLUSION

The application is believed to be in condition for allowance. Favorable reconsideration and allowance of the claims are requested. The Examiner is invited to contact the undersigned if any outstanding issues may be resolved by telephone.

Respectfully submitted,

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